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ABSTRACT

A set of writing assignments and class activities designed to help students analyze their own writing processes, define their own strengths and weaknesses as writers, set their own goals, devise plans for achieving those goals, and evaluate their own progress is presented in this paper. The assignments are explained in detail, and suggestions for resource material and teaching techniques to implement each assignment are provided. In a discussion of excerpts from student writing samples, several problem-solving methods are suggested to help students figure out the relationship between their writing processes and the strengths and weaknesses of their written products. (AEA)

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USING PROBLEM-SOLVING AND PROCESS-ANALYSIS TO HELP STUDENTS RESOLVE THEIR OWN WRITING PROBLEMS

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Using Problem-Solving and Process-Analysis to Help Students Solve Writing Problems

Simple inquiry in most any writing class turns up this fact: after years of having their writings "corrected" and criticized by English teachers, most students cannot state in any precise and useful way just what their own writing problems are. They have had specific errors pointed out to them, and they have made sweeping generalizations (e.g., "I can't punctuate" or "I use 'wrong words'" or even "I can't write"); but they cannot say, "I don't know how to use commas with conjunctions" or "I tend to choose oversimplified theses." It is, however, these middle-level generalizations which are often the key to devising solutions. Thus we are reminded of one of the most important implications of Mina Shaughnessy's Errors and Expectations: it is not enough to point out particular "errors" in students' writings; one must also help students generalize effectively (thereby reducing a multitude of "errors" to a manageable number of "problems"), devise or help them devise strategies for overcoming the problems, and help them incorporate those strategies into their writing processes.

Proper and precise problem-definition is often a prerequisite to efficient problem-solution. In this article, we will present a set of writing assignments and class activities for helping students to analyze their own writing processes, to define their own strengths and weaknesses as writers, to set their own goals, devise plans for achieving those goals, and evaluate their own progress.

These assignments and activities are based on the following principles:

1. The most effective way to change the quality of the written product is to change the process which produces it.

2. Active learning is more effective than passive learning (and student-set goals are more likely to be achieved than instructor-imposed goals).

3. Students can learn a lot from each other.

4. Proper and precise problem-definition often leads to successful problem-solution.

5. A goal is more likely to be achieved if stated precisely and in a form which includes a strategy for achieving it, a schedule or time-limit, and a verification procedure.

(There are, to be sure, exceptions and qualifications to these principles, but we will not list them here because they are not relevant to our particulars.)

The three writing assignments are designed to (1) make students aware of their own writing processes, (2) help them define their own writing problems, and (3) enable them to set their own goals (complete with strategies, schedules and verification procedures). The third assignment in particular requires considerable help from the instructor, but one of the incidental virtues of this unit is that the students take on a lot of the work that instructors have traditionally done (or left undone), thus freeing the instructor to act as expert advisor, and facilitator.[1]

We begin by asking students to write a process-analysis paper about their own writing processes. Note that the assignment is phrased in such a way that it develops the process-analysis naturally from a narration and can be used without prior instruction in process-analysis.

Assignment A: Think of something you wrote recently. Narrate everything you did from the time you first got started on the topic (or received the assignment) to the time when the written product was complete and ready for its readers. As you narrate (or if that

> does not work, after you narrate), explain how this particular writing was typical or atypical of the way you usually write.

This can be the second assignment of the course, and the first assignment (assuming it was not an in-class writing) can be the something-you-wrote-recently. Since most students are relatively good at description, that first assignment could be something like, "Describe a place you lived (or a job you did, or an English class you took) in such a way as to give strangers a sense of what it was like."

The most important difficulty to warn students about is the tendency to idealize one's own writing process. Most people think that the way they write is much closer to the standard textbook procedure than it actually is, and many people will tend to describe the way they write best rather than the way they usually write. In part, this seems to be the result of guilt inspired by former English teachers. Class time should, therefore, be devoted to demystifying the writing process.

One can present the standard textbook procedure--find (or be presented with) a topic, narrow and focus, formulate a thesis-statement, collect information and arguments, make a sentence-outline, write a rough draft from the outline, revise for clarity, coherence and correctness, recopy and proofread--and then assure students that, although this may be a useful ideal for certain types of writing, only a minority of good writers actually follow it (and most of them do not follow it very closely). Then one should present information about how real people write. A convenient summary may be found in Janet Emig's The Composing Processes of 12th Graders (NCTE, 1971) and

more recent information in the journal, Research in the Teaching of English. Fascinating examples can be found in Brewster Ghiselin, ed., The Creative Process (New York: New American Library, 1952).

A second important difficulty follows from the nature of the case: writing is not the sort of process which can be accurately described as a series of discrete steps; thus the content of a writing process-analysis is more complexly interrelated than the content of a paper on "How to Change a Flat Tire" or even "How to Swim the Breast Stroke." But this difficulty is actually one of the strengths of the assignment. We do our students a disservice when we imply (even by omision) that all processes can be analyzed by analogy to "How to Change a Flat Tire." We set them up to be confused by the more complex processes they may wish (or be required) to understand and write about later (e.g., almost any social, economic or ecological process). Having to analyze their own writing forces students to come to terms with the real complexities of the process-analysis form and prepares them for real writing tasks.

The writing process-analysis is an assignment to be shared after it is written. This sharing can be started by duplicating a few typical (or particularly insightful) papers for class discussion and followed through by having every student present her paper in a small group of four or five. This activity continues the demystifying of writing processes. Students find out that they are not alone in their fears, sufferings and idiosyncracies. They learn to appreciate how much writing processes can vary from individual to individual. The sharing

also becomes a source of change, as students say, "You do that! What a good idea. I think I'll try it when I write my next paper," or "You do that! No wonder you're having problems. Why don't you try . . . ." Thus the process-analysis is valuable in and of itself. Although successful writers are typically unconscious of their writing processes (thereby freeing their consciousness to concentrate on content), writers who wish to improve should make themselves temporarily conscious of their writing processes.

The process-analysis also sets up the next assignment: problem-definition. In fact, some students begin to define their writing problems in their process-analyses, and many students help each other begin defining their writing problems during small group discussions. Perhaps it is in the nature of the case that an analysis of one's own writing process leads to evaluation of one's strengths and weaknesses. At any event, just by writing process-analyses, students begin to understand that their writing processes have a concrete relationship to their final written products.

As a profession, we have known for many years that writing is a discovery process. What we have not often done (or done crudely) is to turn this discovery process in on itself to help students discover how to learn to write better. As one basic writing student put it, "Hardly every English student knows what their writing problem is until they are told to write down these problems." The students' process-analyses constitute a first stage of discovery. The second stage, which seems to be

a natural development from the first, is an evaluation of strengths and weaknesses with particular emphasis on problem-definition. (The problem-definition paper, we should point out, is an important form which often constitutes the introduction to a proposal or the conclusion of a report.)

> Assignment B: Describe as specifically as possible the strong and weak points of the writings you produce. In addition to sentence-level strengths and weaknesses, be sure to consider such areas as finding a good topic, organization, coherence and so forth. One good way to approach this assignment is to collect ten or twelve fairly recent writings (perhaps papers from a number of courses you took in the past year or two, with comments from several different instructors if possible). Reread these old writings, and then generalize any feedback you received about them and any insights you now have about the strong points and flaws of those writings. Give specific examples when you can.
>
> Do this writing to the best of your ability, and be prepared to discuss it in class or in conference in order to define 'problems' more precisely.

Just as the first assignment involved taking the process-analysis form often taught in composition classes and focusing it on the writing process, so this assignment is an application of the problem-solving method which has sometimes been taught (and occasionally used as a whole approach[2]) in composition classes. It is important to make sure that students cite concrete examples and that their generalizations remain fairly specific. With less advanced students, it will probably be necessary to do small group work in class and/or hold conferences while they are working on this assignment. It is also a good idea to give some examples.

The following is an excerpt from one advanced student's paper:

> A major fault that runs consistently through my essays is the problem of fully developing themes and ideas. The problem is usually due to laziness in

> elaborating rather than a lack of knowledge. A comment that I got on a second-year English essay said,
>
> > The conclusion is "cruel" in that it holds a promise it does not fulfill. . . . How tantalizing to raise these questions and then leave your reader without a clue to the answer.
>
> I make false assumptions that the reader clearly understands my ideas and can read between the lines. The answer is to assume that the reader is not knowledgeable in your area and, consequently, needs a great deal of elaboration in order to understand.

Note that the problem being described does not appear in the passage. Mere statement of the problem focuses the writer's attention in such a way as to solve certain types of problems. All that remains is to identify a point in that writer's process at which her attention can be so focused.

The following is an excerpt from a basic writing student's paper:

> Writing is a form of communication--exposing ideas to a specific audience. If written incorrectly, the message can be difficult to understand. I have problems writing an effective paper.
>
> My first problem in writing a paper is starting it off right. I have trouble developing an introduction and thesis statement. What could be the problem is that I develop too many ideas and cannot get myself to write about the important ones. Some ideas may not be related to my topic, but I still have a habit of wanting to put them in my essay because it sounds good.

This student has not only identified and defined a problem, but she has even started to hypothesize about why the problem occurs. She is now ready to set a writing goal for herself; her sense of why the problem occurs will help her devise a strategy for overcoming it. We see that, just as good process-analysis leads naturally into problem-definition, so a good problem-definition leads naturally toward goal-statement.

Considerable class time should be spent discussing and refining the students' assessments of their writing.[3] In our

experience, even in basic writing classes, students quickly become involved in giving each other suggestions about how to overcome problems. Often the student whose paper is being discussed will realize what can be done and say something like, "If I just did what Joan does . . ."

Ordinarily, much of the time students spend trying to solve writing problems is wasted because the problem is not clearly defined in the student's mind. This is particularly significant because one of the most common problems revealed to us by our students (advanced and basic alike) was their difficulty managing time. Time-management is not much discussed in writing textbooks, and yet it is one of the quickest ways of improving student writing--because it allows them to take full advantage of the writing abilities they already have. Too often a student will hand in a sloppily-written last-minute paper which she would have been perfectly capable of improving significantly had she managed her time efficiently. Then the instructor, concentrating on what is most basic or elementary, identifies a set of problems which the student already knows how to handle and from which the student has little to learn. The whole purpose of the writing class is undermined. As one student put it, "Most of the faults in my writing could be corrected through careful re-reading and revision. However, revision is difficult at five o'clock on the morning the essay is due."

To appreciate the full importance of time-management, it is helpful to remember that writing is not a linear process with discrete stages. Writing is more usefully understood as

a process of adapting to a complex hierarchy of constraints of various types--a process which evolves toward meaning and communication through this hierarchy.[4] No writer can be simultaneously conscious of all the constraints within which she must make decisions. Most developed writers deal with lower-level constraints (e.g., conventions of spelling and usage) automatically, without conscious attention, most of the time. They also make plans which allow them to deal with certain groups of higher-level decisions (e.g., lexical and rhetorical choices) serially. To carry out these plans, they must manage their time effectively. Time-management is important because certain subconscious creative processes cannot be overly rushed and because many lower-level decisions are made most efficiently during revision if the writer has been able to put the writing aside for a while after drafting it.

Instructors who use this problem-definition assignment with basic writing students should be aware that these students, overwhelmed by the multitude of decisions and typically less skilled at planning, tend to clutch onto the more linear, standard textbook approach and to concentrate so much attention on lower-level decisions that they can think of little else. For this reason, they generally reach closure too quickly: typically they use overly-generalized, inadequately qualified thesis-statements and appear to lack that "attitude of suspended conclusion" which characterizes good academic writing. When they do manage to narrow their topics, they sometimes tend to end up writing on trivial subjects without significant implications. Often they fail to get the general and particular

into meaningful relationship; thus, they present generalizations vaguely and specifics without significance.

We hasten to note that this pattern of problems may be the result of traditional pedagogies, not the "natural" development of writers. Students who concentrate on any particular level of constraints and decisions probably do so, at least in part, because their teachers have conditioned them to do so. The basic writing students who concentrate primarily on lower-level decisions have generally been subjected to "remedial" error-oriented composition courses, which fail to present writing as either a communicational or a creative cognitive process. With such students we find it useful to hand out a list of questions which help focus their attention on likely problem areas. The nature and phrasing of the questions, of course, should be varied to match the particularities of the students. Instructors should make up questions likely to be useful to their own students.

Whatever aids instructors may provide, however, it is important that students identify problems inductively because the process of problem-definition seems to lead students to begin to develop goals and strategies for achieving these goals. As noted above, sometimes the process of defining the problem focuses the writer's attention in such a way as to resolve the problem. Sometimes defining the problem points to specific information (e.g., a punctuation rule) which the writer should learn and learn to apply. Sometimes the instructor will know of specific solutions for particular problems (e.g., sentence-combining for a choppy style). Sometimes, as we will

illustrate below, the juxtaposition of problem-statement with process-analysis suggests the means for resolving the problem.

Having defined a problem, one should restate it positively as a goal. Preliminary goal-statement is simply an inversion of precise problem-statement. Thus a student whose problem is "unsupported generalizations" needs to set a goal of providing adequate support for generalizations. A student whose problem is misusing commas with conjunctions. A student whose problem is "making false assumptions that the reader clearly understands my ideas and can read between the lines" needs to set a goal of providing more fully explicated and supported statement of her ideas.

A developed goal-statement includes a plan for achieving the goal. It is in designing a plan for achieving the student's goal that the instructor's knowledge of how to teach writing is especially utilized. From among all the techniques available for the development of writing abilities, the instructor must help the student devise an <u>intervention</u> which can resolve the problem. If the problem is inadequately supported generalizations, the instructor may suggest a question-heuristic which the student can apply to every generalization in each draft (e.g., to what extent is this true? how do I know it is true? what is a good example of it?); by answering the questions the student qualifies, logically supports and exemplifies the generalization. If the problem involves the use of commas with conjunctions, the instructor may refer the student to a textbook explanation, ask the student to do some exercises from that textbook and then to write ten sentences of her own correctly illustrating the rule.

If the problem is adequate but unsophisticated theses, the instructor may suggest that the student focus topics by finding and resolving contradictions (i.e., by finding two statements about the same topic, each of which is apparently true but which seems to contradict the other--and then writing a paper which resolves the apparent contradiction) instead of using the traditional narrow-and-focus technique.

In other words, any technique ordinarily used to teach composition classes can be used as an individualized intervention. And, of course, if a student comes up with a problem which the instructor does not know how to resolve, it is time for the instructor to consult with colleagues or turn to a bibliography on teaching composition, such as the bibliography published annually in CCC by Richard L. Larson or Gary Tate, ed., Teaching Composition (Texas Christian University Press, 1976).

Thus our third assignment, ordinarily to be written after a conference based on the first two assignments, is as follows:

> Assignment C: List your main strengths as a writer. List your main problems (in rough order of priority). Rephrase those problems as goals together with (a) means for achieving each without undermining your strengths, (b) a time-limit or schedule, and (c) criteria by which you will be able to judge whether you have reached your goal in each case. Remember that successful goal-statement depends upon precise problem-definition (because that leads to the specification of achievable goals).
>
> Now do a revision which combines your paper analyzing your own writing process and your paper analyzing your own writing problems with the goals you have just listed. Try to create one unified and coherent essay because the process of making all this cohere will give you both a balanced assessment of your present writing abilities and a clear picture of the tasks before you as a writing student.[5]

Note that the students are asked to list their main writing problems and to put them in order of priority. This is crucial because, due to their limit of conscious attention, students should not try to resolve more than a few writing problems at a time.

This assignment provides both a platform from which the writer can develop and a basis for evaluating that development. To whatever extent future assignments are devised to match the goals, it becomes the basis for individualized instruction. If the instructor so desires, it can also become the basis for contract-grading: once the goals are agreed upon, the instructor can agree that some percentage of the student's grade will depend upon the degree to which those goals are achieved.

Perhaps most importantly, this assignment brings together process and product. In order to create a "unified and coherent essay" the student must figure out the relationship between her processes and the strengths and weaknesses of her products. This sometimes creates a Eureka reaction, as in the following case:

> One advanced writing student had a problem with under-, over- and mis-developed paragraphs. She always chose good topics, generated clear and complex theses, wrote detailed sentence-outlines which contained topic sentences for every paragraph, and thus organized her papers effectively. But some of her paragraphs had inadequate support, some concepts were supported much more than necessary, and much of the detail in her papers did not seem clearly attached to anything. In university courses, her papers generally received B's and B-minuses, grades which did not satisfy her. But even when the flaws of a particular paper were marked, she did not seem able to correct them.

This student had a highly structured writing process. She had good procedures for finding a topic and thesis after collecting considerable information and looking at her subject from a variety of perspectives. She carefully made sentence-outlines of her main points. And then she wrote her draft. She also had explicit procedures for revision.

What her process-analysis made obvious was that she had an explicit and structured procedure for everything--except for developing support. At her instructor's suggestion, she developed her own heuristic, which she then applied to each topic sentence in her outline:

1. What do you mean?
2. Explain that!
3. Give details!
4. Give an example!
5. This means that . . .
6. Why do you believe that?

This heuristic may seem like a bit of overkill, and it does sound as if she is yelling at herself, but it produced an immediate qualitative leap in the quality of her writing (and A's on term papers written for other courses just weeks later). Because generalities and particulars were now in a proper and properly developed relationship, her papers now had that quality which demonstrates the cognitive abilities valued by our educational system.

As this case-history suggests, one of the beauties of this set of assignments and activities is that it does more than help students resolve writing problems and develop writing abilities; it also teaches them <u>how</u> to resolve writing problems and develop writing abilities. Thus they can leave the course knowing how to continue developing on their own.

Notes

[1]The set of assignments and activities we present here were developed in an advanced writing course, where they led to rather remarkable leaps in the quality of written product for a majority of the students. We are now in the process of trying an essentially similar unit in a basic writing program for students from oppressed minority groups, where it seems to be producing similar breakthroughs. We publish this report by way of invitation: we hope that other writing instructors who may try these assignments will write to us, enabling us to discover how the unit might be improved and how it should be adapted for various types of students. Although the nature of the case makes controlled experiment difficult and perhaps undesirable, we hope in this way to approach objectivity and to produce a more definitive report several years hence.

[2]This approach was described by Joseph Comprone in "Heuristics and Problem-Solving," a paper presented at the CCCC in Kansas City, Mo., in March 1977. See also Richard E. Young, Alton L. Becker and Kenneth L. Pike, "The Process of Inquiry," in Rhetoric: Discovery and Change (New York: Harcourt, Brace and World, 1970), 71-88, and Ann E. Berthoff, "The Problem of Problem Solving," CCC, 22 (October 1971), 237-242.

[3]While noting that we have experienced a great deal of success with these activities, we must point out that trust and respect between student and teacher, as well as among students, are crucial to that success. If students are not honest about their processes and problems, if they are not willing to give and accept criticism, it seems likely that these activities will fail.

[4]See Linda Flower and John Hayes, "The Dynamics of Composing: Making Plans and Juggling Constraints," an abstract of a paper given at the Symposium on Cognitive Processes in Composition," Carnegie-Mellon University, Pittsburgh, Pa., May 1978; Richard M. Coe, "Rhetoric 2001," Freshman English News, 3:1 (Spring 1974), 2-3; and Richard M. Coe and Anthony Wilden, "Errore," Enciclopedia (Torino, Italy: Einaudi, 1978), Vol. 5, esp., 696-698 and 706-710.

[5]Students have by this point, in addition to learning about their own writing, practiced four important forms: case-history, process-analysis, problem-solution, and proposal-writing.